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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/613,475	07/02/2003	Michael Perkins	19353/5-CIP	4657

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EXAMINER

CHORBAJI, MONZER R

ART UNIT	PAPER NUMBER
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1744

DATE MAILED: 02/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/613,475

Applicant(s)

PERKINS, MICHAEL

Examiner

MONZER R. CHORBAJI

Art Unit

1744

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 12/10/2004.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

DETAILED ACTION

This general action is in response to continuation-in-part application filing date of 07/02/2003

Claim Objections

1. Claims 9, 17-18 and 20 are objected to because of the following informalities:

In claim 9, the transitional phrase "consisting of" should be included in numbered 17. The same applies to claims 17-18 and 20. Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claim 12 is rejected under 35 U.S.C. 102(b) as being anticipated by Caracciolo (U.S.P.N. 4,827,727).

The Caracciolo reference teaches a method (col.1, lines 4-9) for sterilizing poultry with ozonated water in a chiller (figure 1:1) that includes the following: recovering a portion of the chiller water (figure 1:10), filtering organic solids (figure 1:13, 14 and 15) and returning the filtered water to the chiller (figure 1:19).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Coate et al (U.S.P.N. 5,679,257).

With respect to claim 1, the Coate reference discloses a method for disinfecting bodies of wastewater that includes controlling the pH level of the aqueous system to a specific value (for example, see col.14, lines 43-45) then adding the disinfectant to the system (col.14, lines 45-50). The Coates reference recognizes the relationship between the proper pH value and the optimum removal of contaminants in wastewater (col.4, lines 15-25). The Coate reference teaches that it is known that in the art of food processing and wine, sulfur dioxide is used as a disinfecting agent (col.1, lines 66-67 and col.2, lines 1-6); however, such a disinfectant has been used on small scale since large amounts are needed to reach the appropriate level of disinfection. Thus, it would have been obvious to one having ordinary skill in the at the time the invention was made to disinfect wastewater generated by food processing plants by using the Coate's method since the main known disinfectant in the food industry has failed to achieve wide-spread use (col.1, lines 66-67 and col.2, lines 1-6).

With respect to claims 2-3, the Coate reference teaches controlling the pH to a value of 6 (col.4, lines 20-25) and in col.18, lines 55-65, Coates teaches that pH values depends on the type of contaminate treated. Some contaminates are better removed at higher pH while others at lower pH values. Based on this teaching, one skilled in the art would recognize that pH values are specific to the optimal removal of a certain type of contaminate and finding the proper pH is a matter of routine experimentation.

7. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Coate et al (U.S.P.N. 5,679,257) as applied to claim 1 and further in view of Hurst (U.S.P.N. 5,053,140).

The Coate reference fails to teach using chlorine to disinfect water systems in poultry plants; however, the Hurst reference, which is in the art of treating process water of poultry plants teaches adding chlorine to such water (col.7, lines 7-10). Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the Coate reference to disinfect wastewater generated by poultry processing plants in order to greatly reduce the volume of makeup fresh water to the process as taught by the Hurst reference (col.2, lines 30-34) and further by adding chlorine as taught by the Hurst reference an additional disinfecting step is available depending on the contamination level of wastewater (col.4, lines 40-43).

8. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Holzhauer et al (U.S.P.N. 5,472,619) in view of Caracciolo (U.S.P.N. 4,827,727).

The Holzhauer reference teaches a method for disinfecting wastewater generated by meat-packing plants (col.1, lines 5-10) that includes controlling the pH of

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the wastewater (col.4, lines 34-36) and treating wastewater from various operations in the plant (col.5, lines 19-21); however, the Holzhauer reference fails to explicitly teach treating the chilling wastewater of a poultry plant. The Caracciolo reference, which is in the art of ozone-treating chilling water in a poultry processing plant, teaches the following: recovering a portion of the chiller water (figure 1:10), filtering organic solids (figure 1:13, 14 and 15) and returning the filtered water to the chiller (figure 1:19). Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of the Holzhauer reference by disinfecting chilling water in a poultry processing plant in order to reduce the amount of fresh water added to the plant as taught by the Caracciolo reference (col.2, lines 7-9).

9. Claims 6-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Holzhauer et al (U.S.P.N. 5,472,619) in view of Hurst (U.S.P.N. 5,053,140).

With respect to claim 6, the Holzhauer reference teaches a method for disinfecting wastewater generated by meat-packing plants (col.1, lines 5-10) that includes adding a disinfectant (col.6, lines 58-60), controlling the pH of the wastewater (col.6, lines 60-62) and treating wastewater from various operations in the plant (col.5, lines 19-21). The Holzhauer reference fails to explicitly teach disinfecting wastewater generated by poultry plants; however, the Hurst reference teaches disinfecting chilling water in a poultry plant (col.1, lines 7-14 and col.5, lines 38-42) where the steps of scalding, picking, eviscerating, washing and rinsing are inherent steps of such process. Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the Holzhauer reference to disinfect all wastewaters

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generated at various processing steps in a poultry plant in order to greatly reduce the volume of makeup fresh water to the process in order to reduce operating costs as taught by the Hurst reference (col.2, lines 30-34).

With respect to claims 7 and 9-10, the Holzhauer reference teaches the following: a method for disinfecting wastewater generated by meat-packing plants (col.1, lines 5-10), controlling the pH of the wastewater (col.6, lines 60-62) and treating wastewater from various operations in the plant (col.5, lines 19-21). The Holzhauer reference fails to explicitly teach disinfecting wastewater generated by poultry plants, use of the chlorine or ozone and monitoring and regulating the addition of the disinfectant. The Hurst reference teaches the following: disinfecting wastewater generated by chilling chicken carcasses (col.6, lines 30-40) where the step of eviscerating is an inherent step of such process, use of the chlorine or ozone (figure 1:10 and 7) and monitoring and regulating the addition of the disinfectant (col.7, lines 18-33). Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the Holzhauer reference to disinfect all wastewaters generated at various processing steps in a poultry plant including the eviscerating step in order to greatly reduce the volume of makeup fresh water to the process in order to reduce operating costs as taught by the Hurst reference (col.2, lines 30-34).

With respect to claim 8, the Holzhauer reference teaches to initially add the disinfectant then to control the pH level (col.6, lines 58-61).

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10. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Holzhauer et al (U.S.P.N. 5,472,619) in view of Hurst (U.S.P.N. 5,053,140) as applied to claim 16 and further in view of Coate et al (U.S.P.N. 5,679,257).

Both the Holzhauer reference and the Hurst reference teach that pH should be controlled to a certain values in order to improve the efficiency of disinfection; however, they fail to disclose an explicit pH level between 6 and 8. The Coate reference teaches controlling the pH to a value of 6 (col.4, lines 20-25) and in col.18, lines 55-65, Coates teaches that pH values depends on the type of contaminate treated. Some contaminants are better removed at higher pH while others at lower pH values. Based on this teaching, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of the Holzhauer reference by choosing a pH value between 6 and 8 since at such a range optimum removal of contaminants is achieved as taught by the Coate reference (col.18, lines 58-61).

11. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Caracciolo (U.S.P.N. 4,827,727) as applied to claim 12 and further in view of Hibbard et al (U.S.P.N. 5,514,282).

The Caracciolo reference teaches a method (col.1, lines 4-9) for sterilizing poultry with ozonated water in a chiller (figure 1:1) that includes screening the recovered water (figure 1:12) and fine filtering the recovered water (figure 1:15), but fails to teach floating the recovered water in a floatation unit. The Hibbard reference, which is in the art of processing wastewater from food industry, teaches the use of a floatation unit (figure: 12). Thus, it would have been obvious to one having ordinary skill in the art at

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the time the invention was made to modify the method of the Caracciolo reference by including a floatation unit as taught by the Hibbard reference since the use of such a unit has unexpectedly been found to effect a high removal of phosphorous from the wastewater feed stream (col.4, lines 43-45).

12. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Caracciolo (U.S.P.N. 4,827,727) as applied to claim 12 and further in view of Holzhauer et al (U.S.P.N. 5,472,619) and Hurst (U.S.P.N. 5,053,140).

The Caracciolo reference teaches adding a disinfectant to the chiller water, but fails to teach controlling the pH level and monitoring the addition of the disinfectant and the pH level in the chiller. The Holzhauer reference, teaches controlling the pH level of the wastewater (col.6, lines 60-62). Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of the Caracciolo reference by including a pH level controlling step as taught by the Holzhauer reference in order to enhance kill rates of microorganisms in wastewaters (col.4, lines 35-42).

With respect to claim 14, the Holzhauer reference fails to teach monitoring the addition of the disinfectant and the pH level in the chiller. The Hurst reference teaches monitoring the addition and concentration of ozone added into the wastewater (col.7, lines 12-30). Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of the Caracciolo reference by including a disinfectant monitoring step as taught by the Hurst reference in order to maintain ozone concentration in wastewater at optimum level.

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13. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Caracciolo (U.S.P.N. 4,827,727) as applied to claim 12 and further in view of Holzhauer et al (U.S.P.N. 5,472,619) and Coate et al (U.S.P.N. 5,679,257).

The Caracciolo reference fails to teach maintaining pH level in the chiller water between 6 and 8; however, the Holzhauer reference, teaches controlling the pH level of the wastewater (col.6, lines 60-62). Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of the Caracciolo reference by including a pH level controlling step as taught by the Holzhauer reference in order to enhance kill rates of microorganisms in wastewaters (col.4, lines 35-42).

With respect to claim 15, the Holzhauer reference fails to teach maintaining the pH level of wastewater between 6 and 8. The Coate reference teaches controlling the pH to a value of 6 (col.4, lines 20-25) and in col.18, lines 55-65, Coates teaches that pH values depends on the type of contaminate treated. Some contaminates are better removed at higher pH while others at lower pH values. Based on this teaching, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of the Caracciolo reference by choosing a pH value between 6 and 8 since at such a range optimum removal of contaminants is achieved as taught by the Coate reference (col.18, lines 58-61).

14. Claims 16-17, 21 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Holzhauer et al (U.S.P.N. 5,472,619) in view of Mostoller (U.S.P.N. 5,882,253).

With respect to claims 16 and 21, the Holzhauer reference teaches a method for disinfecting wastewater generated by meat-packing plants (col.1, lines 5-10) that includes adding a disinfectant (col.6, lines 58-60) to a recovered process water (col.5, lines 19-21), controlling the pH of the wastewater (col.6, lines 60-62), reintroducing the treated process water (col.4, lines 31-32) and treating wastewater from various operations in the plant (col.5, lines 19-21). The Holzhauer reference fails to explicitly teach disinfecting wastewater generated by poultry plants; however, the Mostoller reference teaches that the steps of slaughtering, scalding, defeathering, eviscerating and the like are known in the art of processing chicken (col.4, lines 20-23). Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the Holzhauer reference to disinfect all wastewaters generated at various processing steps in a poultry plant including heated water used in, for example, scalding step, as taught by the Mostoller reference in order to minimize the risk of pathogen contamination to humans (Mostoller, col.1, lines 5-10).

With respect to claims 17 and 26, the Holzhauer reference fails to teach processing poultry; however, the Mostoller reference teaches that the step of scalding is known in the art of processing chicken (col.4, lines 20-23) and recognizes that the eviscerating step causes serious contamination problem in a continuous on-line poultry processing plant (col.1, lines 5-13 and col.2, lines 34-49). Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the Holzhauer reference to disinfect all wastewaters generated at various processing steps in a poultry plant, specifically the eviscerating and scalding steps, as

taught by the Mostoller reference in order to minimize the risk of pathogen contamination to humans (Mostoller, col.1, lines 5-10).

15. Claims 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Holzhauer et al (U.S.P.N. 5,472,619) in view of Mostoller (U.S.P.N. 5,882,253) as applied to claim 16 and further in view of Hurst (U.S.P.N. 5,053,140).

With respect to claims 18-20, the Holzhauer reference and the Mostoller reference fail to teach the use of ozone and chlorine in treating recovered water in a poultry processing plant. The Hurst reference teaches injecting ozone and chlorine (figure 1:10 and 7) into recovered water from the chiller step (col.5, lines 38-40) in a poultry processing plant. Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the Holzhauer reference by additionally including ozone and chlorine since ozone oxidizes oxidizable material in the wastewater and kills microorganisms therein (Hurst, col.6, lines 60-61) and chlorine provides a further assuring disinfecting step in case the wastewater is heavily contaminated (Hurst, col.4, lines 40-43).

16. Claims 22-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Caracciolo (U.S.P.N. 4,827,727) in view of Holzhauer et al (U.S.P.N. 5,472,619).

With respect to claim 22, the Caracciolo reference teaches a method (col.1, lines 4-9) for sterilizing poultry with ozonated water in a chiller (figure 1:1) that includes the following: recovering a portion of the chiller water (figure 1:10), filtering organic solids (figure 1:13, 14 and 15) and returning the filtered water to the chiller (figure 1:19). However, the Caracciolo fails to teach controlling the pH of the disinfected filtered water.

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The Holzhauer reference, teaches controlling the pH level of the wastewater (col.6, lines 60-62). Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of the Caracciolo reference by including a pH level controlling step as taught by the Holzhauer reference in order to enhance kill rates of microorganisms in wastewaters (col.4, lines 35-42).

With respect to claims 23-25, the Caracciolo reference uses multiple filtering steps (figure: 13, 14 and 15) that necessarily results in reducing the chemical oxidation demand, which leads to improving the efficacy of the disinfectant, and the filterable organics are fat and other bulky carcass debris (col.3, lines 16-18).


Conclusion

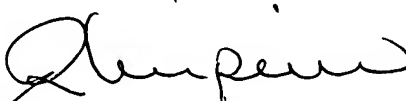
17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to MONZER R. CHORBAJI whose telephone number is (571) 272-1271. The examiner can normally be reached on M-F 6:30-3:00.

18. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, RICHARD D. CRISPINO can be reached on (571) 272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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19. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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